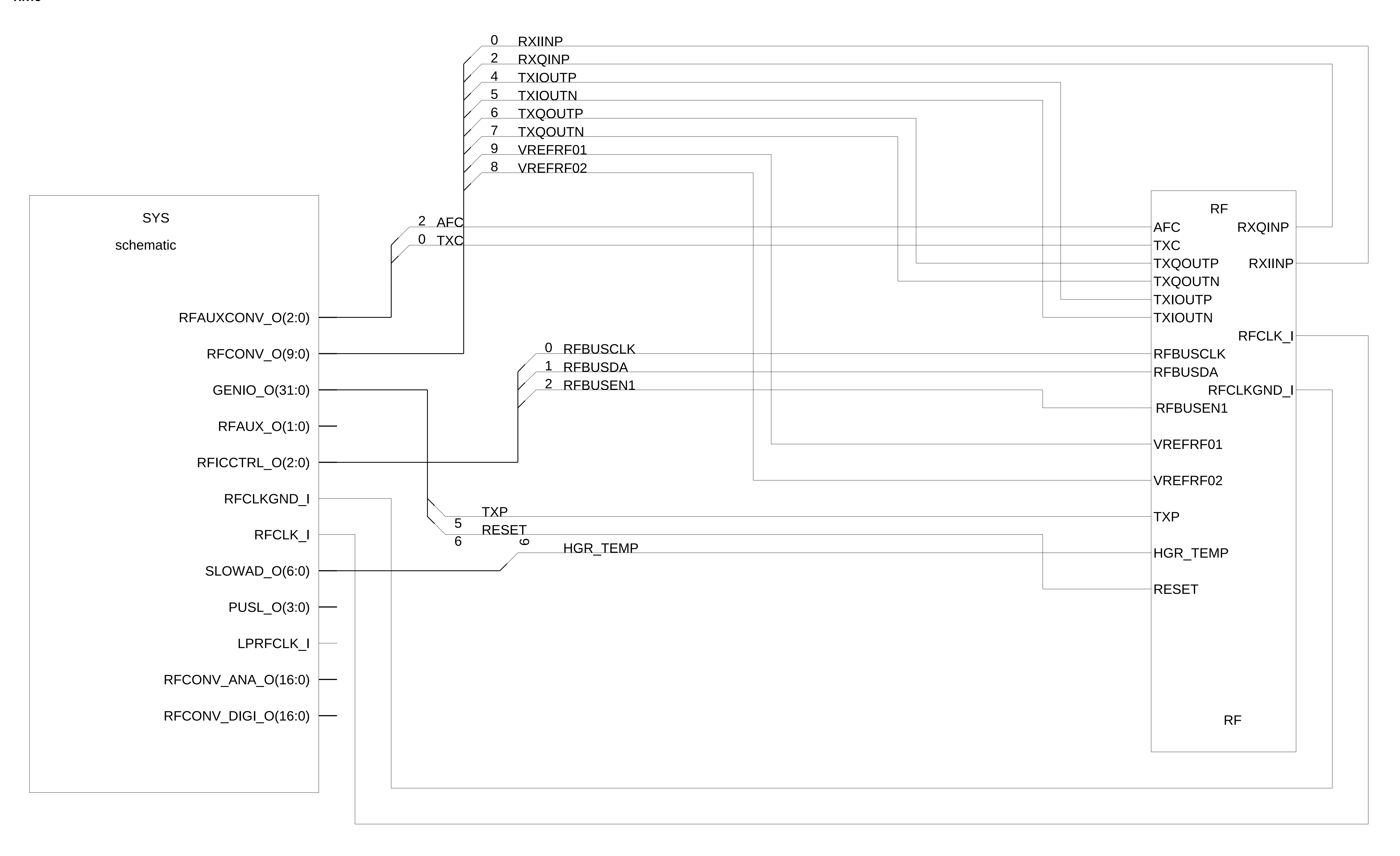
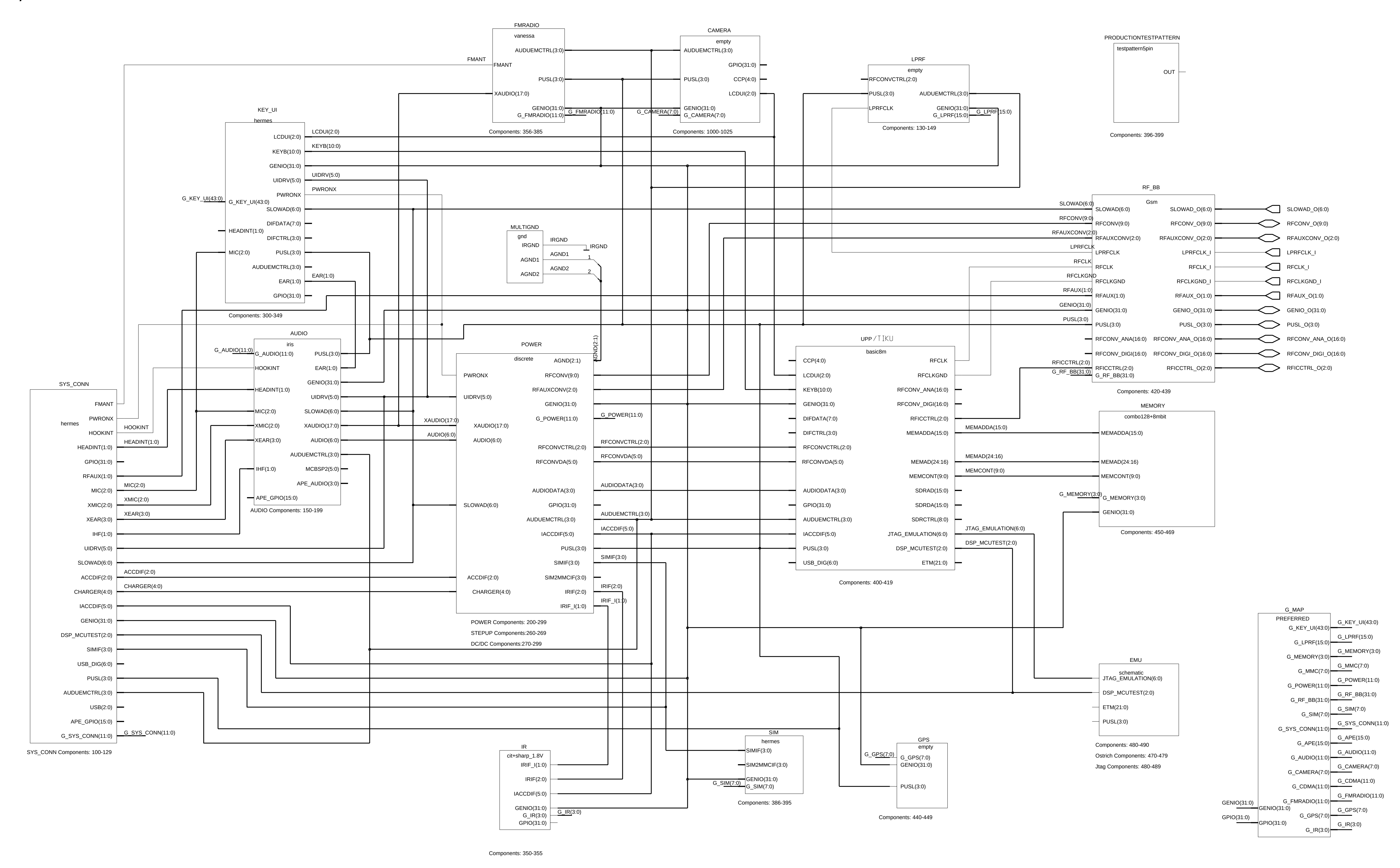
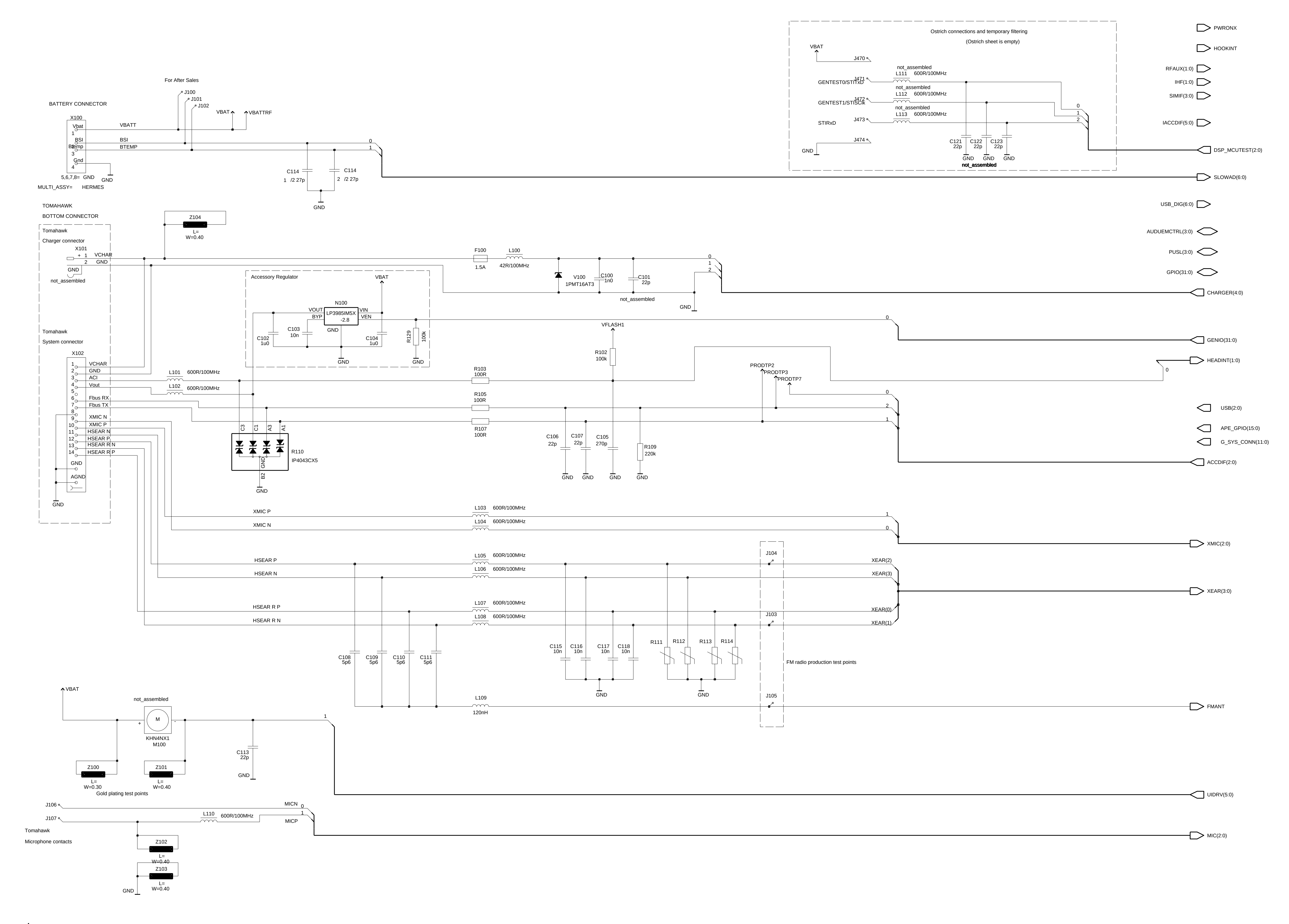

SYS
schematic
RFAUXCONV_O(2:0)
RFCONV_O(9:0)
GENIO_O(31:0)
RFAUX_O(1:0)
RFICCTRL_O(2:0)
RFCLKGND_I
RFCLK_I
SLOWAD_O(6:0)
PUSL_O(3:0)
LPRFCLK_I
RFCONV_ANA_O(16:0)
RFCONV_DIGI_O(16:0)
0 RXIINP
2 RXQINP
4 TXIOUTP
5 TXIOUTN
6 TXQOUTP
7 TXQOUTN
9 VREFRF01
8 VREFRF02
2 AFC
0 TXC
0 RFBUSCLK
1 RFBUSDA
2 RFBUSEN1
TXP
5 RESET
6
6 HGR_TEMP
RF
AFC
TXC
TXQOUTP
TXQOUTN
TXIOUTP
TXIOUTN
RFBUSCLK
RFBUSDA
RFBUSEN1
VREFRF01
VREFRF02
TXP
HGR_TEMP
RESET
RXQINP
RXIINP
RFCLK_I
RFCLKGND_I
RF

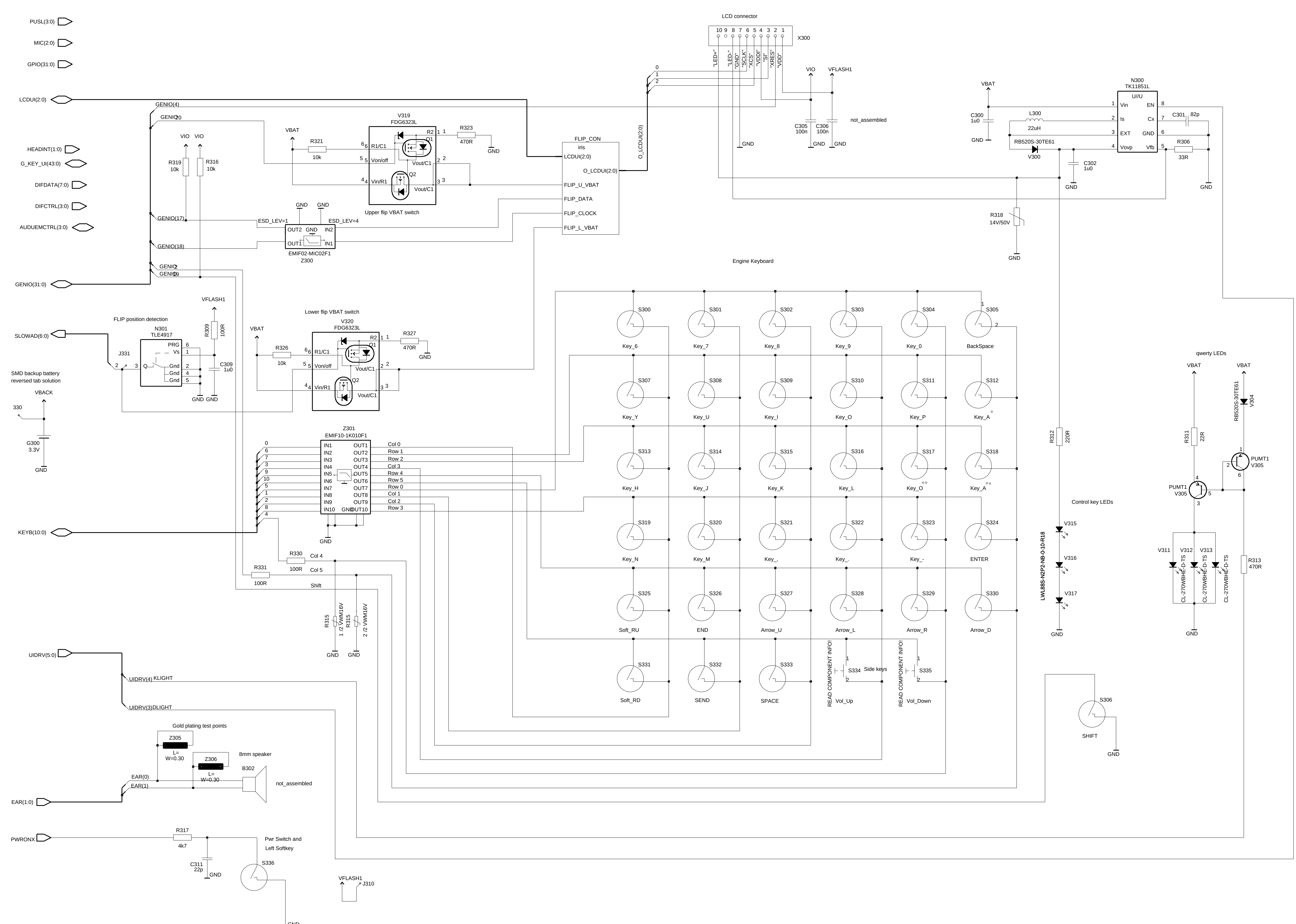
System


FMRADIO
vanessa
AUDUEMCTRL(3:0)
FMANT
PUSL(3:0)
XAUDIO(17:0)
GENIO(31:0)
G_FMRADIO(11:0)
Components: 356-385
CAMERA
empty
GPIO(31:0)
CCP(4:0)
LCDUI(2:0)
G_CAMERA(7:0)
Components: 1000-1025
LPRF
RFCONVCTRL(2:0)
LPRFCLK
G_LPRF(15:0)
Components: 130-149
PRODUCTIONTESTPATTERN
testpattern5pin
OUT
Components: 396-399
KEY_UI
hermes
KEYB(10:0)
UIDRV(5:0)
PWRONX
G_KEY_UI(43:0)
SLOWAD(6:0)
DIFDATA(7:0)
HEADINT(1:0)
DIFCTRL(3:0)
MIC(2:0)
EAR(1:0)
Components: 300-349
MULTIGND
gnd
IRGND
AGND1
AGND2
RF_BB
Gsm
SLOWAD_O(6:0)
RFCONV(9:0)
RFCONV_O(9:0)
RFAUXCONV(2:0)
RFAUXCONV_O(2:0)
LPRFCLK_I
RFCLK
RFCLK_I
RFCLKGND
RFCLKGND_I
RFAUX(1:0)
RFAUX_O(1:0)
GENIO_O(31:0)
PUSL_O(3:0)
RFCONV_ANA(16:0)
RFCONV_ANA_O(16:0)
RFCONV_DIGI(16:0)
RFCONV_DIGI_O(16:0)
RFICCTRL(2:0)
RFICCTRL_O(2:0)
G_RF_BB(31:0)
Components: 420-439
AUDIO
iris
G_AUDIO(11:0)
HOOKINT
XMIC(2:0)
XEAR(3:0)
IHF(1:0)
APE_GPIO(15:0)
MCBSP2(5:0)
APE_AUDIO(3:0)
AUDIO Components: 150-199
POWER
discrete
AGND(2:1)
RFCONVDA(5:0)
AUDIODATA(3:0)
G_POWER(11:0)
ACCDIF(2:0)
CHARGER(4:0)
IACCDIF(5:0)
SIMIF(3:0)
SIM2MMCIF(3:0)
IRIF(2:0)
IRIF_I(1:0)
POWER Components: 200-299
STEPUP Components:260-269
DC/DC Components:270-299
UPP / TIKU
basic8m
CCP(4:0)
RFCLK
MEMADDA(15:0)
MEMAD(24:16)
MEMCONT(9:0)
SDRAD(15:0)
SDRDA(15:0)
SDRCTRL(8:0)
JTAG_EMULATION(6:0)
DSP_MCUTEST(2:0)
USB_DIG(6:0)
ETM(21:0)
Components: 400-419
MEMORY
combo128+8mbit
G_MEMORY(3:0)
Components: 450-469
SYS_CONN
hermes
USB(2:0)
G_SYS_CONN(11:0)
SYS_CONN Components: 100-129
EMU
schematic
Components: 480-490
Ostrich Components: 470-479
Jtag Components: 480-489
SIM
G_SIM(7:0)
Components: 386-395
GPS
G_GPS(7:0)
Components: 440-449
IR
cit+sharp_1.8V
G_IR(3:0)
Components: 350-355
G_MAP
PREFERRED
G_MMC(7:0)
G_APE(15:0)
G_CDMA(11:0)

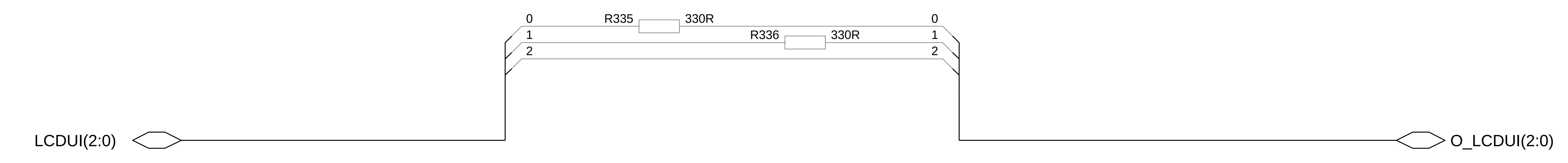
System Connector



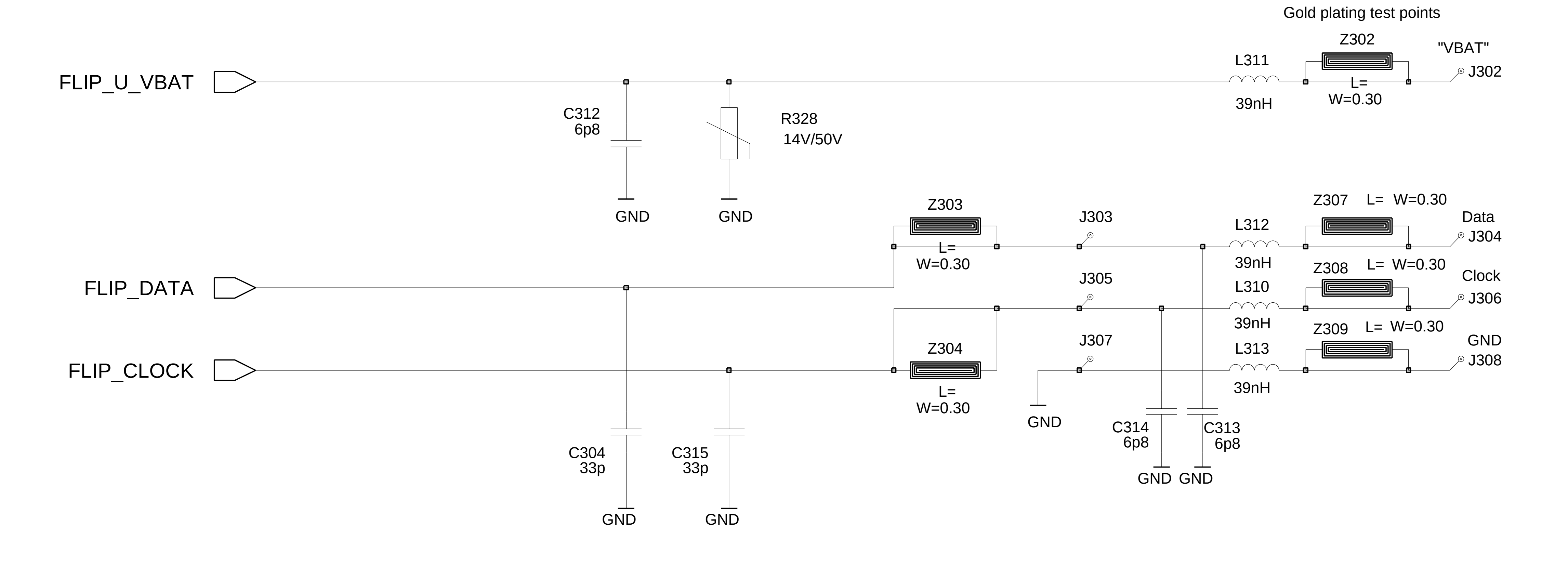
Key UI

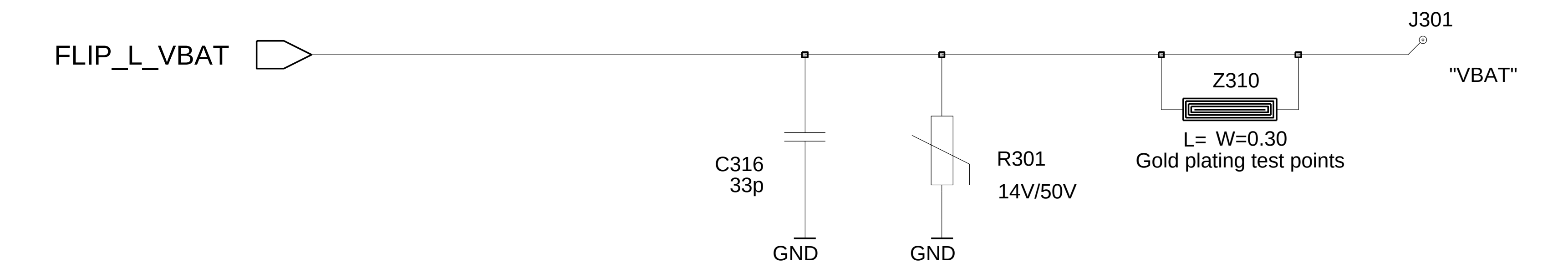

LCD connector
X300
FLIP_CON
Upper flip VBAT switch
Lower flip VBAT switch
FLIP position detection
SMD backup battery reversed tab solution
Engine Keyboard
Control key LEDs
qwerty LEDs
Side keys
Gold plating test points
8mm speaker
not_assembled
Pwr Switch and Left Softkey
Key_6
Key_7
Key_8
Key_9
Key_0
BackSpace
Key_Y
Key_U
Key_I
Key_O
Key_P
Key_H
Key_J
Key_K
Key_L
Key_N
Key_M
ENTER
Soft_RU
END
Arrow_U
Arrow_L
Arrow_R
Arrow_D
Soft_RD
SEND
SPACE
Vol_Up
Vol_Down
SHIFT
READ COMPONENT INFO!

Flip Connector

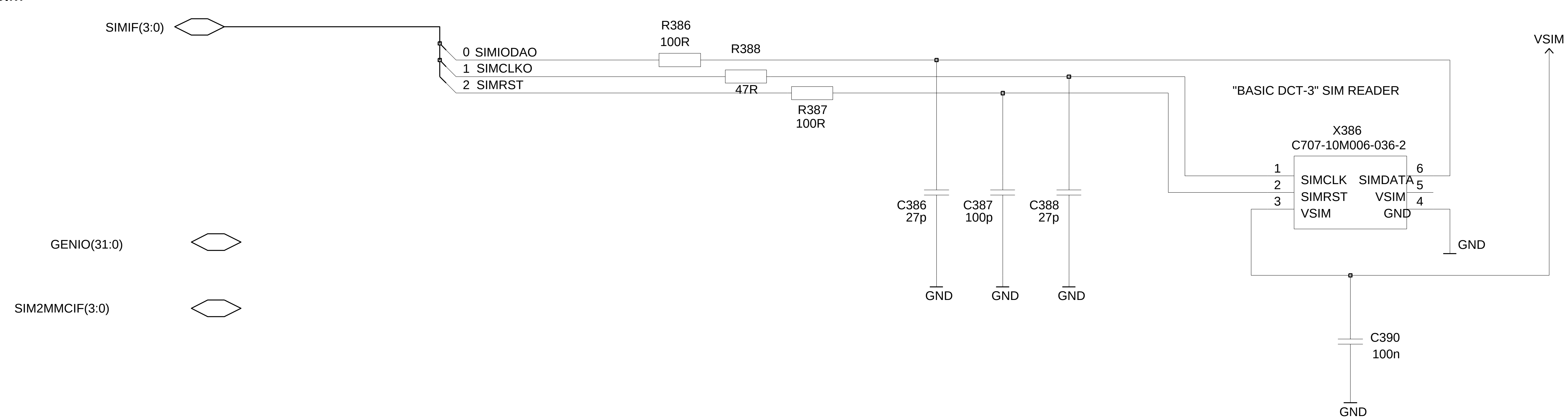


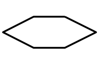
Flip connections



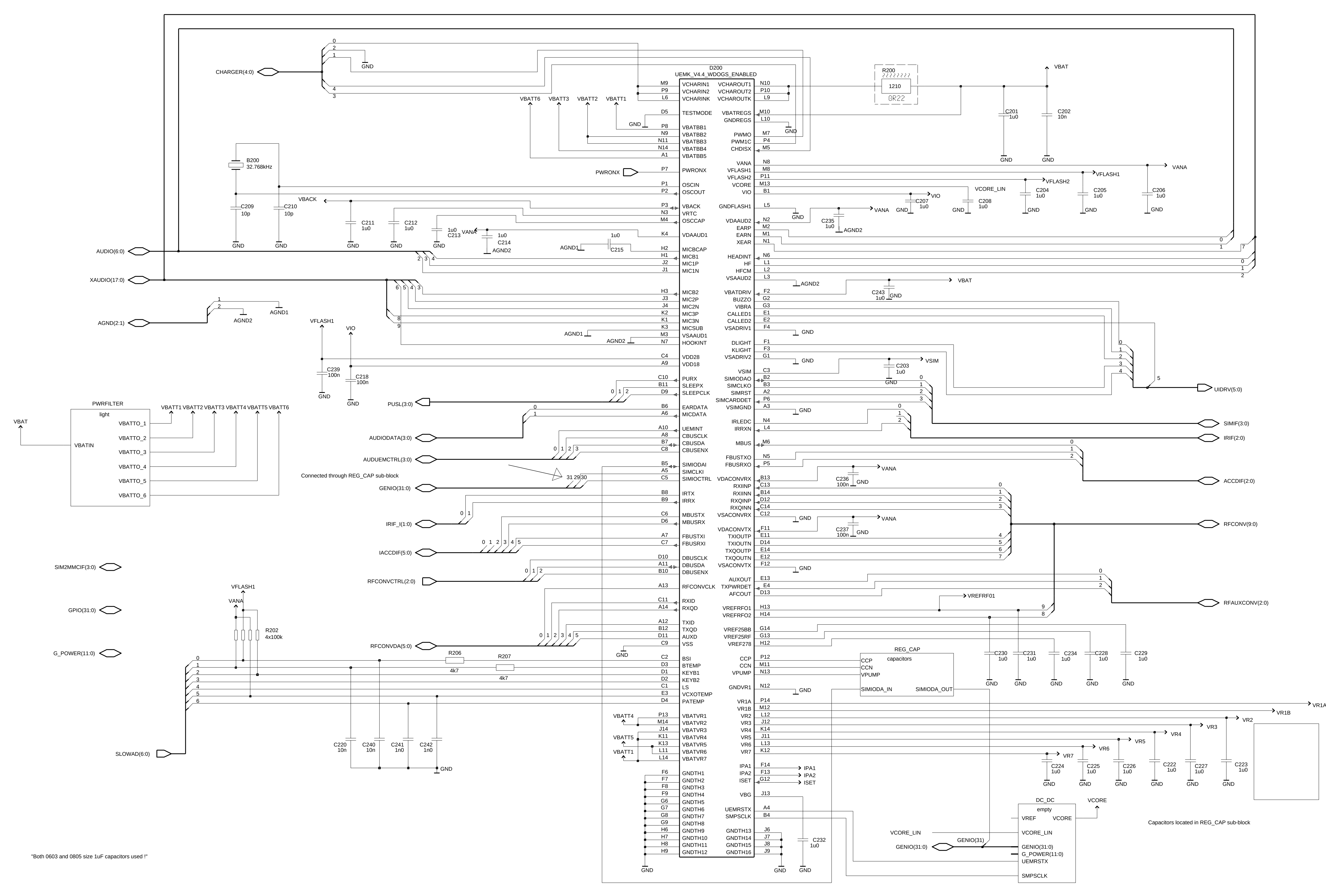


SIM


SIMIF(3:0)
R386
100R
R388
0 SIMIODAO
1 SIMCLKO
2 SIMRST
47R
R387
100R
VSIM
"BASIC DCT-3" SIM READER
X386
C707-10M006-036-2
1
2
3
SIMCLK
SIMRST
VSIM
SIMDATA
VSIM
GND
6
5
4
C386
27p
C387
100p
C388
27p
GND
GND
GND
GND
C390
100n
GND
GENIO(31:0)
SIM2MMCIF(3:0)

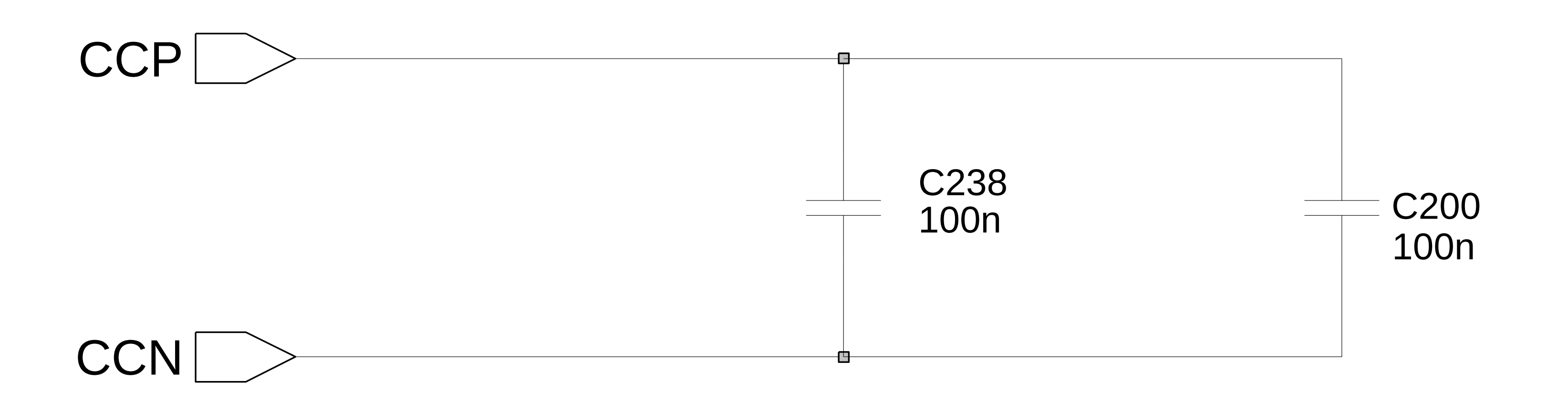

G_SIM(7:0)

Power

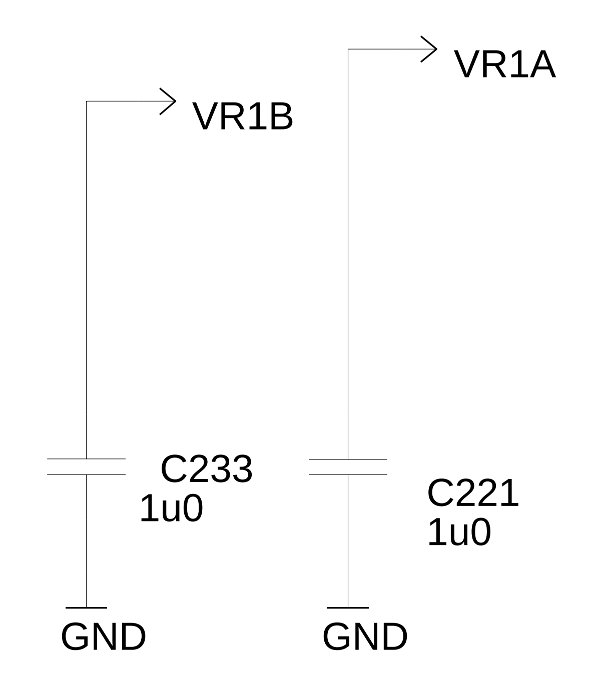

D200
UEMK_V4.4_WDOGS_ENABLED
CHARGER(4:0)
AUDIO(6:0)
XAUDIO(17:0)
AGND(2:1)
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(3:0)
GENIO(31:0)
IRIF_I(1:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
SIM2MMCIF(3:0)
GPIO(31:0)
G_POWER(11:0)
SLOWAD(6:0)
UIDRV(5:0)
SIMIF(3:0)
IRIF(2:0)
ACCDIF(2:0)
RFCONV(9:0)
RFAUXCONV(2:0)
PWRFILTER
light
VBATIN
VBATTO_1
VBATTO_2
VBATTO_3
VBATTO_4
VBATTO_5
VBATTO_6
B200
32.768kHz
R200
1210
0R22
R202
4x100k
R206
4k7
R207
4k7
REG_CAP
capacitors
CCP
CCN
VPUMP
SIMIODA_IN
SIMIODA_OUT
DC_DC
empty
VREF
VCORE
VCORE_LIN
GENIO(31:0)
G_POWER(11:0)
UEMRSTX
SMPSCLK
Connected through REG_CAP sub-block
Capacitors located in REG_CAP sub-block
"Both 0603 and 0805 size 1uF capacitors used !"
Used refs in REG_CAP: C238, C200, C219, C233, C221 and R205

Reg Cap

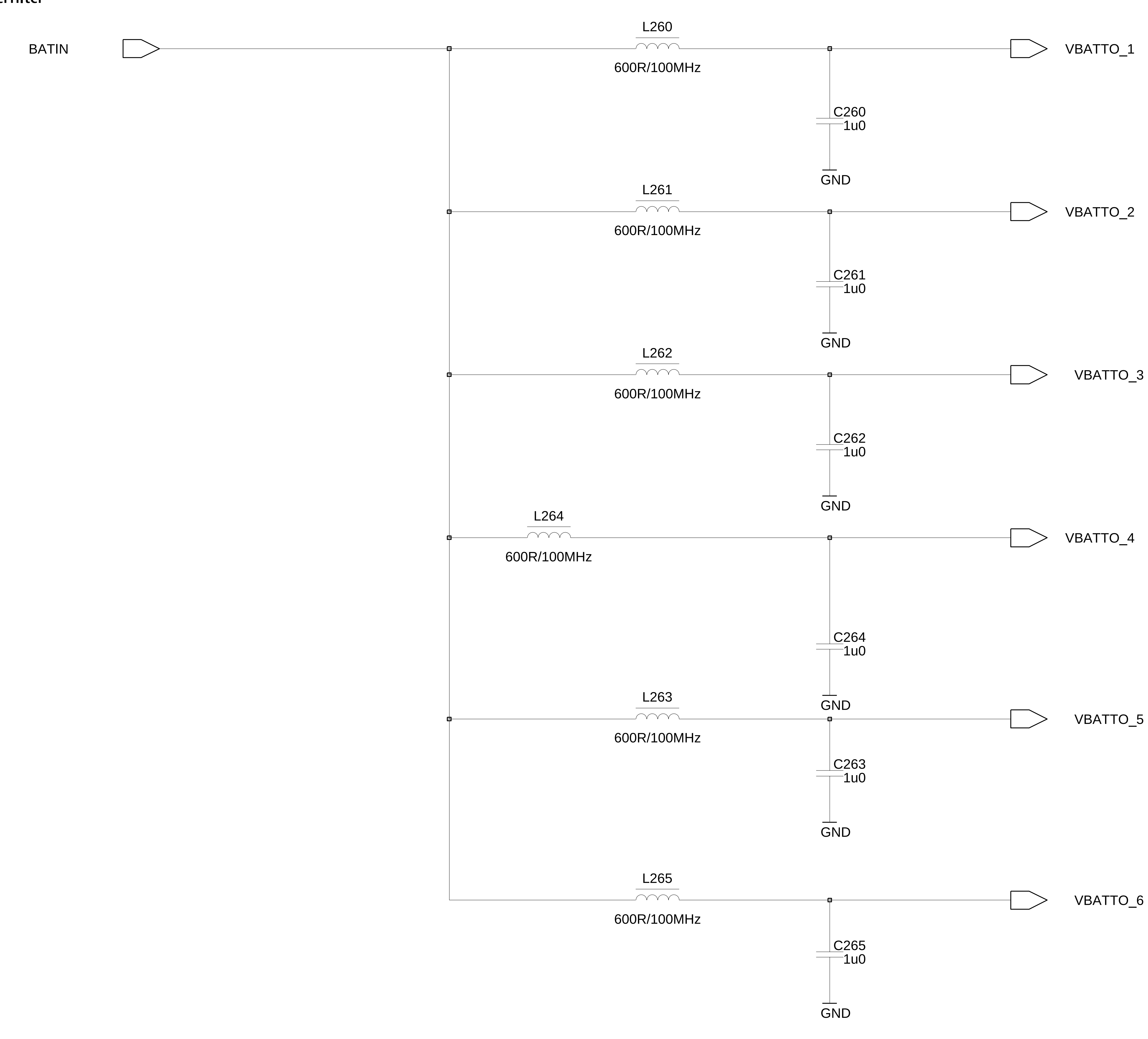

SIMIODA_IN
SIMIODA_OUT


CCP
CCN
C238
100n
C200
100n

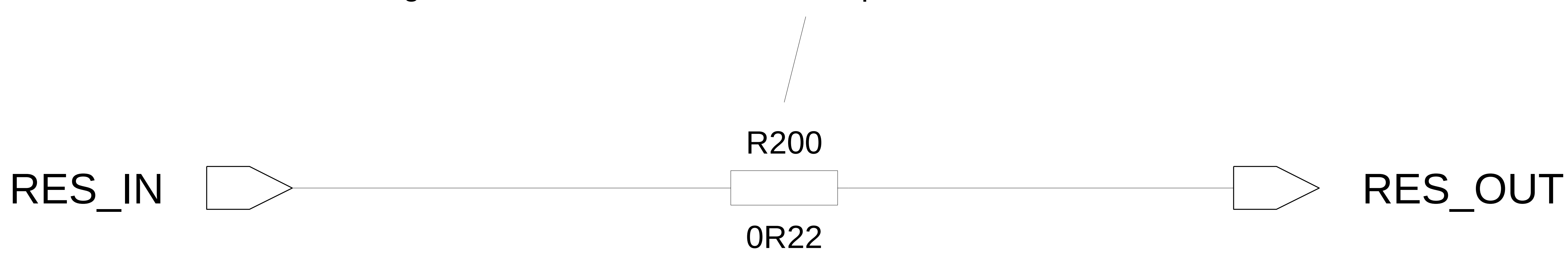

VPUMP
1u0
C219
GND


VR1B
VR1A
C233
1u0
C221
1u0
GND
GND

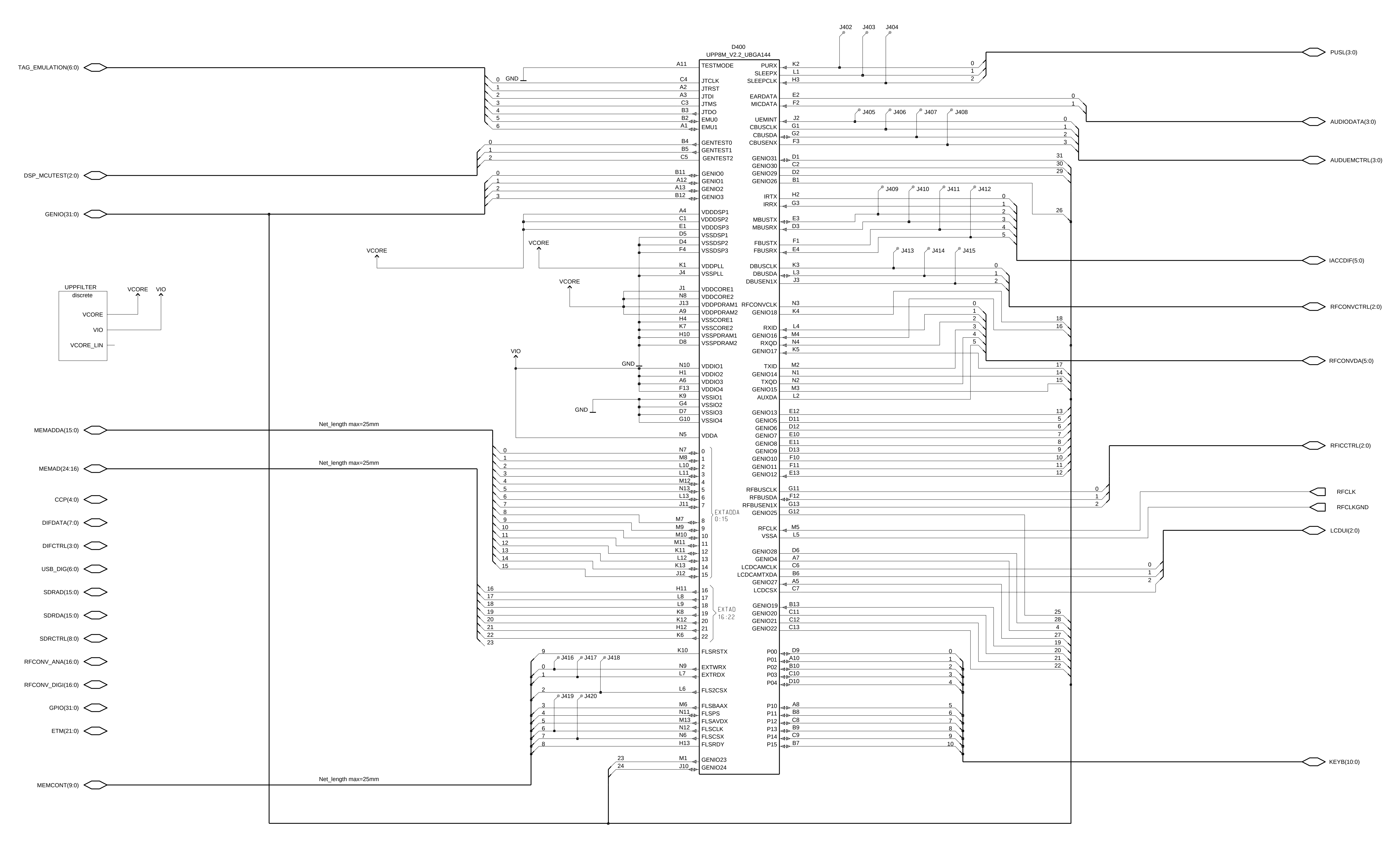
Powerfilter



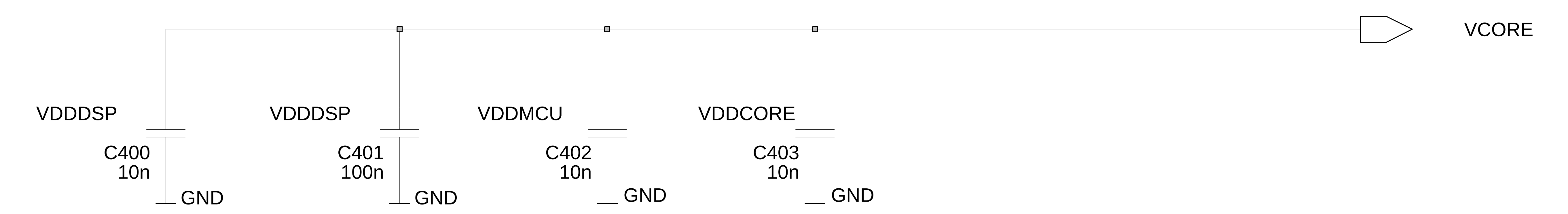
R200


Will be changed to reference number in viewpoint
R200
RES_IN
RES_OUT
0R22

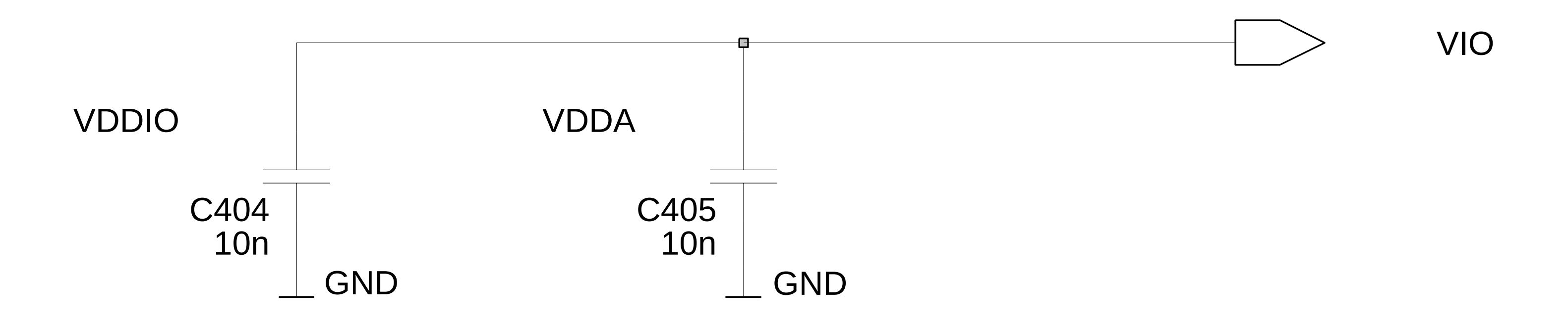
UPP


D400
UPP8M_V2.2_UBGA144
TAG_EMULATION(6:0)
DSP_MCUTEST(2:0)
GENIO(31:0)
UPPFILTER
discrete
VCORE
VIO
VCORE_LIN
GND
MEMADDA(15:0)
MEMAD(24:16)
CCP(4:0)
DIFDATA(7:0)
DIFCTRL(3:0)
USB_DIG(6:0)
SDRAD(15:0)
SDRDA(15:0)
SDRCTRL(8:0)
RFCONV_ANA(16:0)
RFCONV_DIGI(16:0)
GPIO(31:0)
ETM(21:0)
MEMCONT(9:0)
Net_length max=25mm
TESTMODE
JTCLK
JTRST
JTDI
JTMS
JTDO
EMU0
EMU1
GENTEST0
GENTEST1
GENTEST2
GENIO0
GENIO1
GENIO2
GENIO3
VDDDSP1
VDDDSP2
VDDDSP3
VSSDSP1
VSSDSP2
VSSDSP3
VDDPLL
VSSPLL
VDDCORE1
VDDCORE2
VDDPDRAM1
VDDPDRAM2
VSSCORE1
VSSCORE2
VSSPDRAM1
VSSPDRAM2
VDDIO1
VDDIO2
VDDIO3
VDDIO4
VSSIO1
VSSIO2
VSSIO3
VSSIO4
VDDA
EXTADDA 0:15
EXTAD 16:22
FLSRSTX
EXTWRX
EXTRDX
FLS2CSX
FLSBAAX
FLSPS
FLSAVDX
FLSCLK
FLSCSX
FLSRDY
GENIO23
GENIO24
PURX
SLEEPX
SLEEPCLK
EARDATA
MICDATA
UEMINT
CBUSCLK
CBUSDA
CBUSENX
GENIO31
GENIO30
GENIO29
GENIO26
IRTX
IRRX
MBUSTX
MBUSRX
FBUSTX
FBUSRX
DBUSCLK
DBUSDA
DBUSEN1X
RFCONVCLK
GENIO18
RXID
GENIO16
RXQD
GENIO17
TXID
GENIO14
TXQD
GENIO15
AUXDA
GENIO13
GENIO5
GENIO6
GENIO7
GENIO8
GENIO9
GENIO10
GENIO11
GENIO12
RFBUSCLK
RFBUSDA
RFBUSEN1X
GENIO25
RFCLK
VSSA
GENIO28
GENIO4
LCDCAMCLK
LCDCAMTXDA
GENIO27
LCDCSX
GENIO19
GENIO20
GENIO21
GENIO22
P00
P01
P02
P03
P04
P10
P11
P12
P13
P14
P15
J402
J403
J404
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(3:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
RFICCTRL(2:0)
RFCLK
RFCLKGND
LCDUI(2:0)
KEYB(10:0)

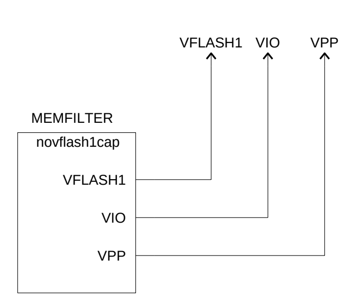
UPP Filter



VCORE_LIN



Memory



MEMEXTENSION
empty
MEMADDA(15:0)
MEMAD(24:16)
MEMCONT(9:0)
GENIO(31:0)
G_MEMORY(3:0)
FLS2CSX

MEMWING
empty
GENIO(31:0)
G_MEMORY(3:0)
MEMAD(24:16)
MEMADDA(15:0)
MEMCONT(9:0)
FLS2CSX
FLSCSX

GENIO(31:0) 23

D450
NMP_DCT4_128MNOR_8MSRAM
FLASHM 8Mx16
SRAM 512kx16

MEMAD(16) B2
MEMAD(17) A9
MEMAD(18) B8
MEMAD(19) A8
MEMAD(20) B3
16 – 20 A
FLASH/SRAM
MEMAD(21) A2 A21/_LB
MEMAD(22) A10 A22/_UB
B7 _WP/_CS
FLASH
MEMCONT(6) A4 CLK
MEMCONT(9) B6 _RESET
B9 _CEF
RDY A1
NC 1 E451
NC 2 E452
NC 3 E453
NC 4 E454
NC 5 E455
NC 6 E456
NC 7 E457
NC 8 E458
COMMON
MEMCONT(5) B4 _AVD
MEMCONT(0) A6 _WE
MEMCONT(1) C10 _OE
MEMCONT(4) B5 PS

MEMAD(24:16)

D10
ADDRESS/DATA I/O
0
1 D9
2 C7
3 C6
4 D5
5 D4
6 C3
7 C2
8 C9
9 C8
10 D7
11 D6
12 C5
13 C4
14 D2
15 D1

VPP PRODTP6
MEMCONT(3) R450 4k7 E450 2

MEMCONT(9:0)
MEMCONT(8)

A5,B1,D8= VIO
A7= VPP
A3,B10,C1,D3= GND

MEMADDA(15:0)

G_MEMORY(3:0)

Memory Wing

MEMADDA(15:0)

MEMAD(24:16)

GENIO(31:0)

G_MEMORY(3:0)

FLS2CSX

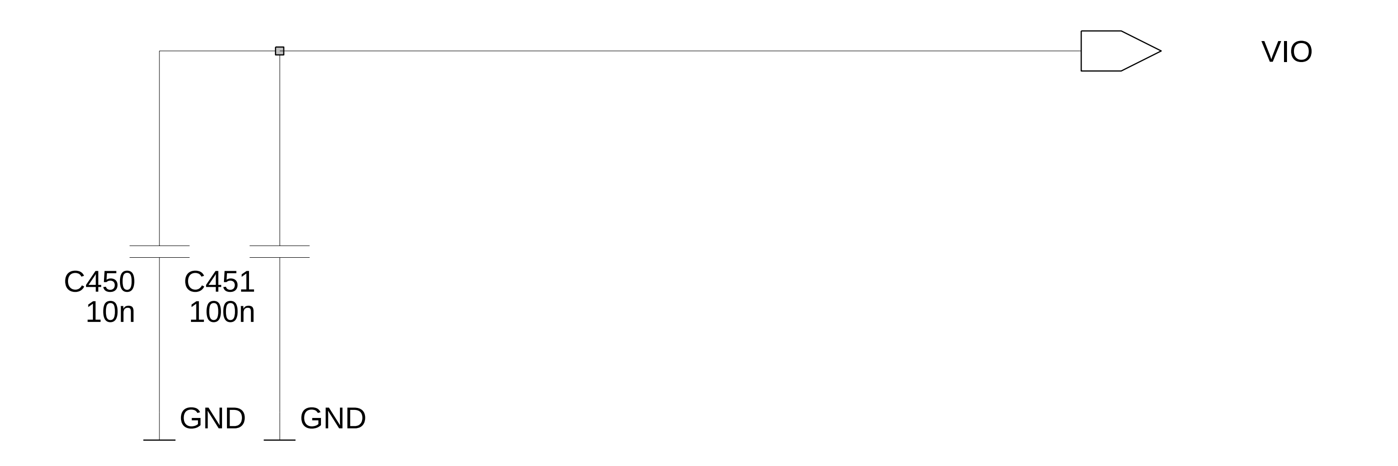
2

7

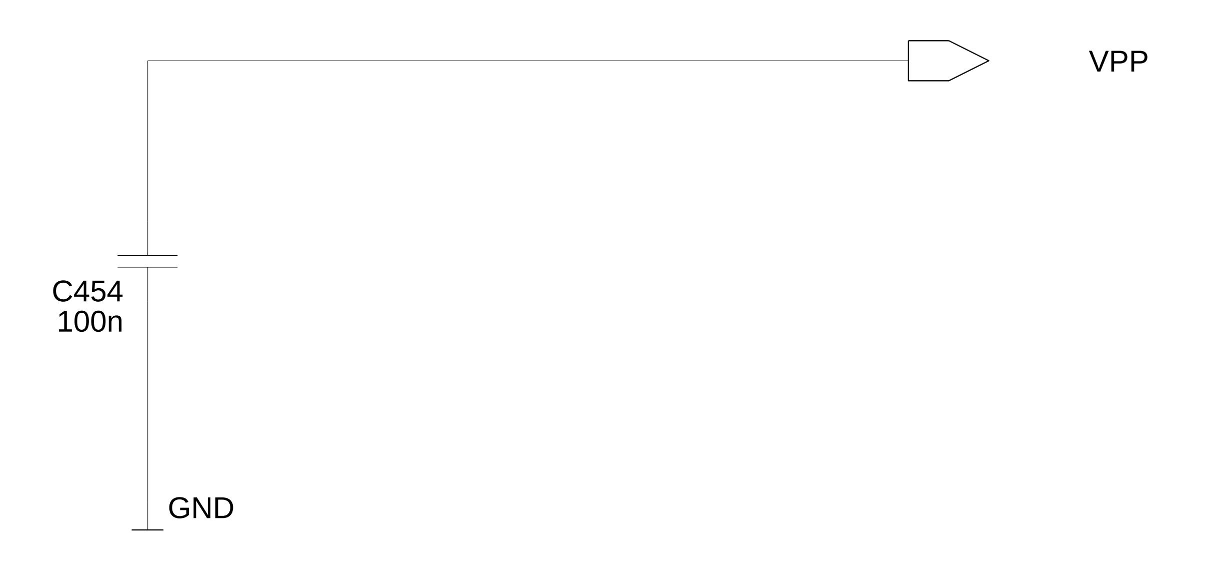
FLSCSX

MEMCONT(9:0)

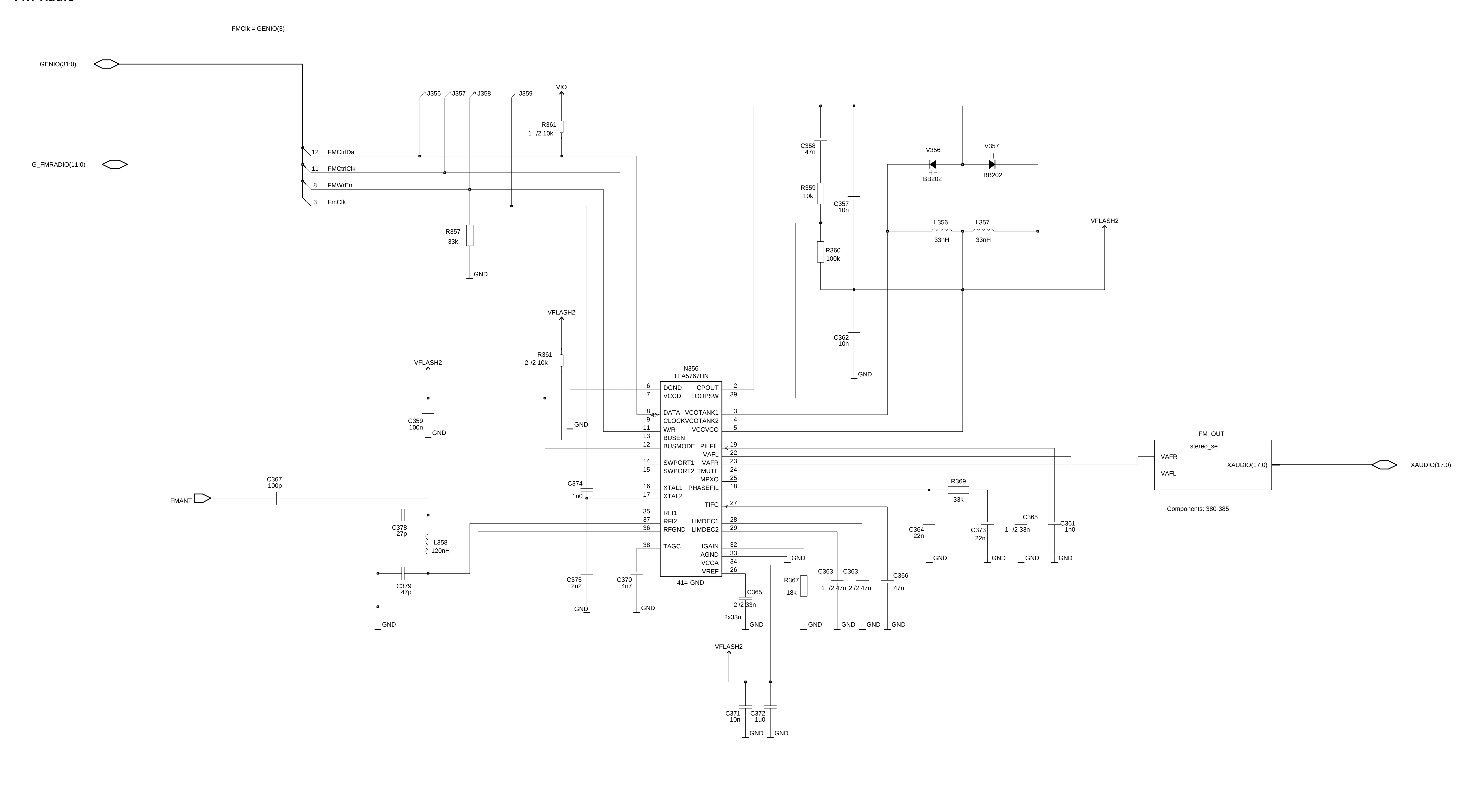
Memory Filter



VFLASH1



FM Radio



Notice:

C374 (1n0) and C375 (2n2) are configured for 32kHz reference clock

If reference clock is 6.5MHz, use C374 (3p9) and C375 (10p)

FM Out

XAUDIO(17:0)
FM_RADIO L
VAFL
XAUDIO(10)
FM_RADIO R
AFR
XAUDIO(11)

G_CAMERA(7:0)

AUDUEMCTRL(3:0)

LCDUI(2:0)

GENIO(31:0)

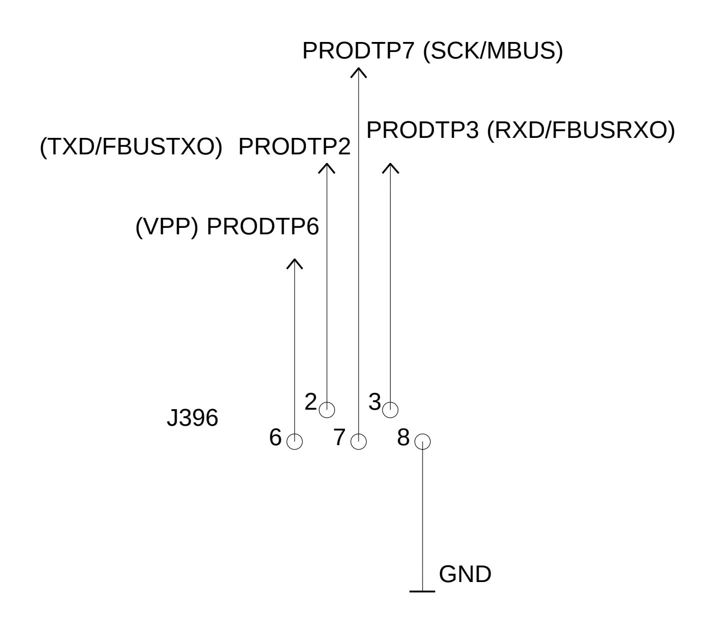
CCP(4:0)

GPIO(31:0)

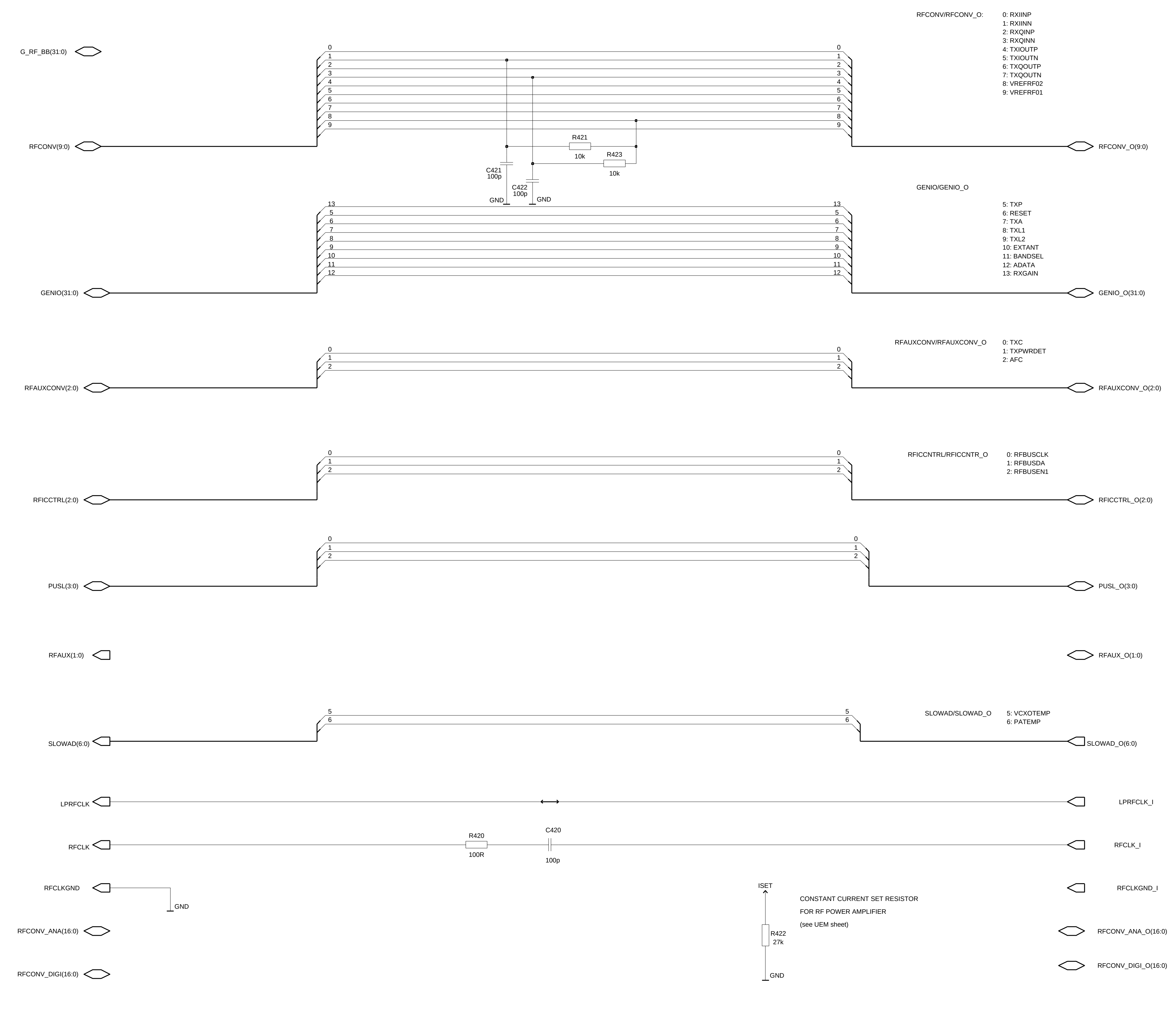
PUSL(3:0)

Production Testpattern

OUT

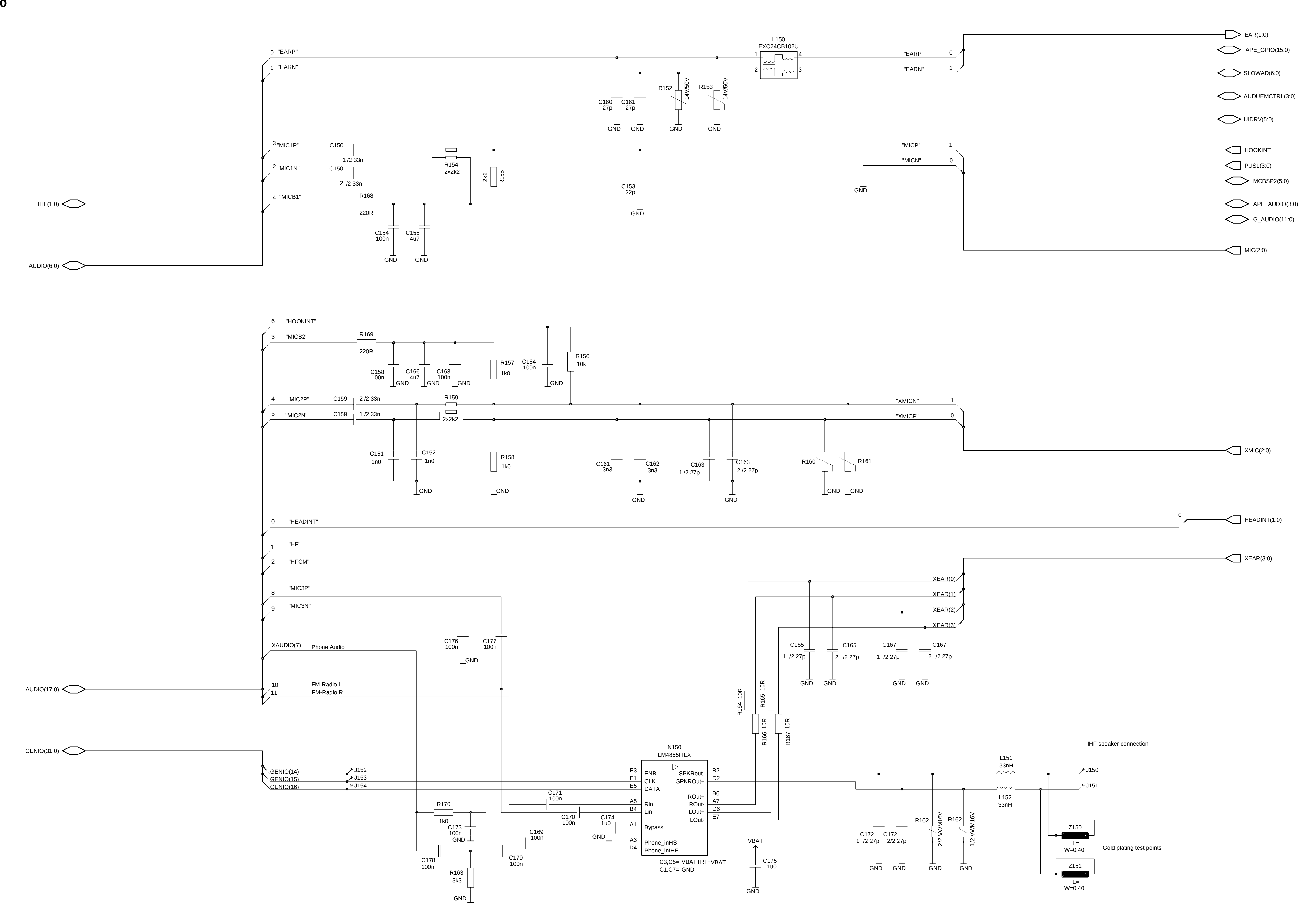


RF and BB

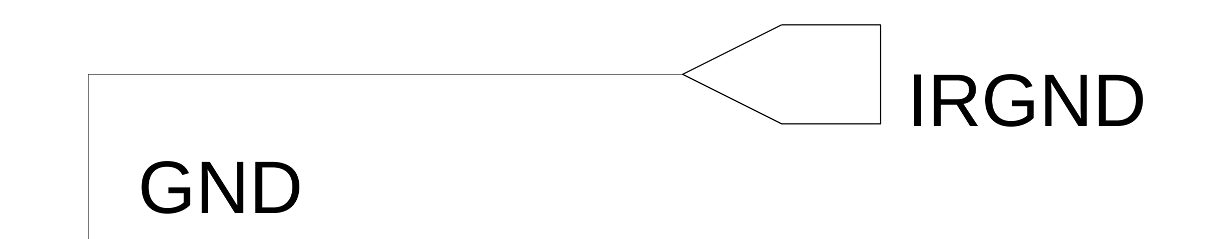


RFCONV/RFCONV_O:
0: RXIINP
1: RXIINN
2: RXQINP
3: RXQINN
4: TXIOUTP
5: TXIOUTN
6: TXQOUTP
7: TXQOUTN
8: VREFRF02
9: VREFRF01
G_RF_BB(31:0)
RFCONV(9:0)
RFCONV_O(9:0)
R421
10k
R423
10k
C421
100p
C422
100p
GND
GENIO/GENIO_O
5: TXP
6: RESET
7: TXA
8: TXL1
9: TXL2
10: EXTANT
11: BANDSEL
12: ADATA
13: RXGAIN
GENIO(31:0)
GENIO_O(31:0)
RFAUXCONV/RFAUXCONV_O
0: TXC
1: TXPWRDET
2: AFC
RFAUXCONV(2:0)
RFAUXCONV_O(2:0)
RFICCNTRL/RFICCNTR_O
0: RFBUSCLK
1: RFBUSDA
2: RFBUSEN1
RFICCTRL(2:0)
RFICCTRL_O(2:0)
PUSL(3:0)
PUSL_O(3:0)
RFAUX(1:0)
RFAUX_O(1:0)
SLOWAD/SLOWAD_O
5: VCXOTEMP
6: PATEMP
SLOWAD(6:0)
SLOWAD_O(6:0)
LPRFCLK
LPRFCLK_I
R420
100R
C420
100p
RFCLK
RFCLK_I
RFCLKGND
RFCLKGND_I
ISET
CONSTANT CURRENT SET RESISTOR
FOR RF POWER AMPLIFIER
(see UEM sheet)
R422
27k
RFCONV_ANA(16:0)
RFCONV_ANA_O(16:0)
RFCONV_DIGI(16:0)
RFCONV_DIGI_O(16:0)
IF IPA1 AND IPA2 ARE USED BY RF THE TOLERANCE HAS TO BE 1% (0402, 1430873)

Audio



Multi GND



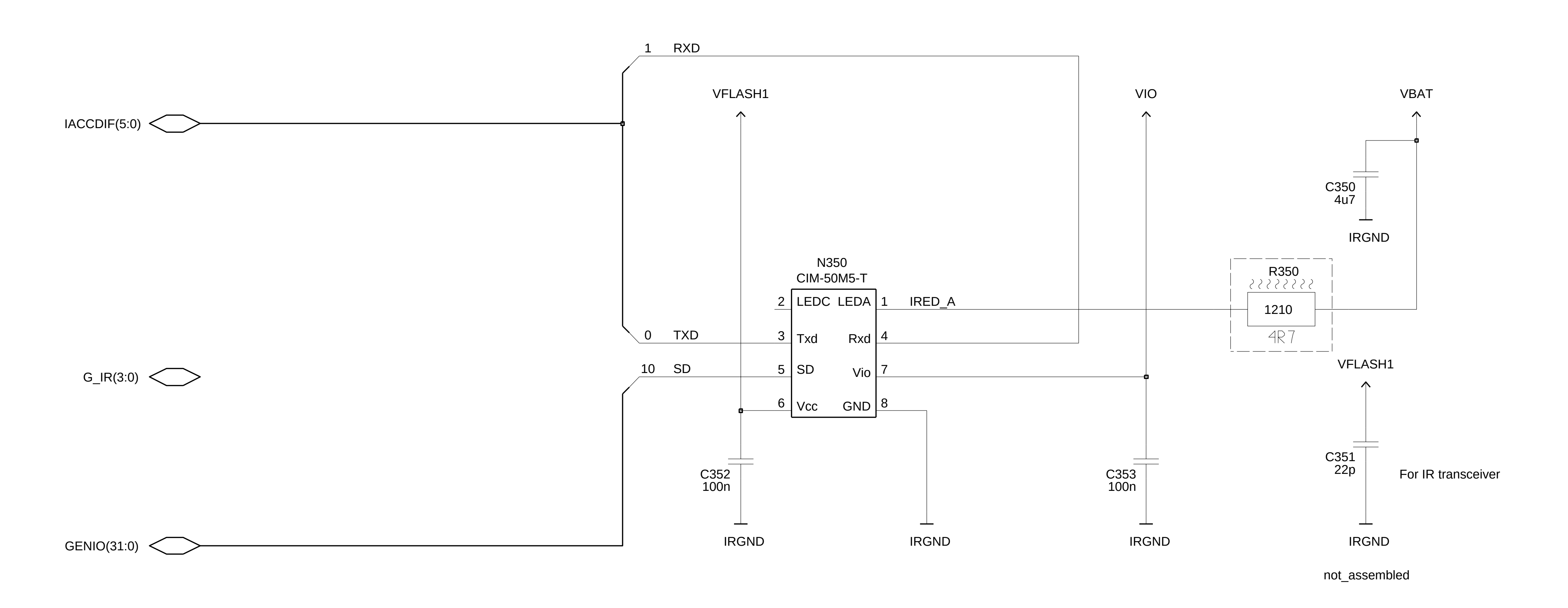
AGND1

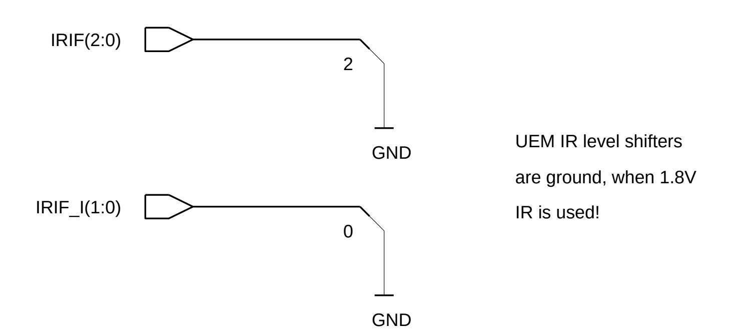
GND

AGND2

GND

IR



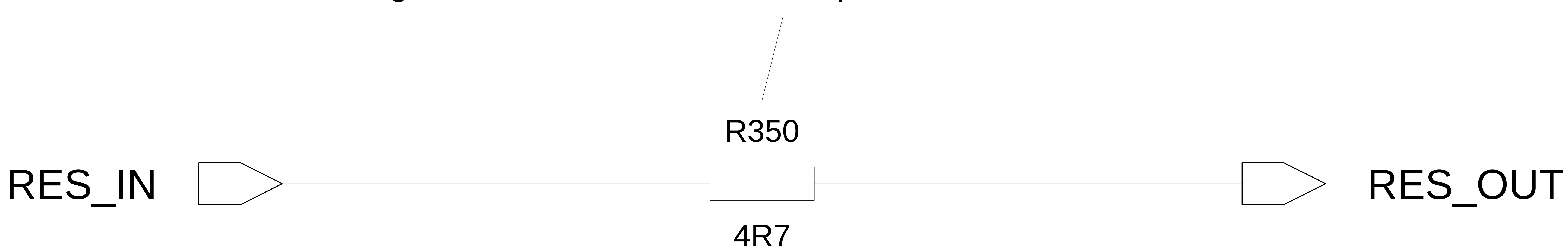


UEM IR level shifters
are ground, when 1.8V
IR is used!

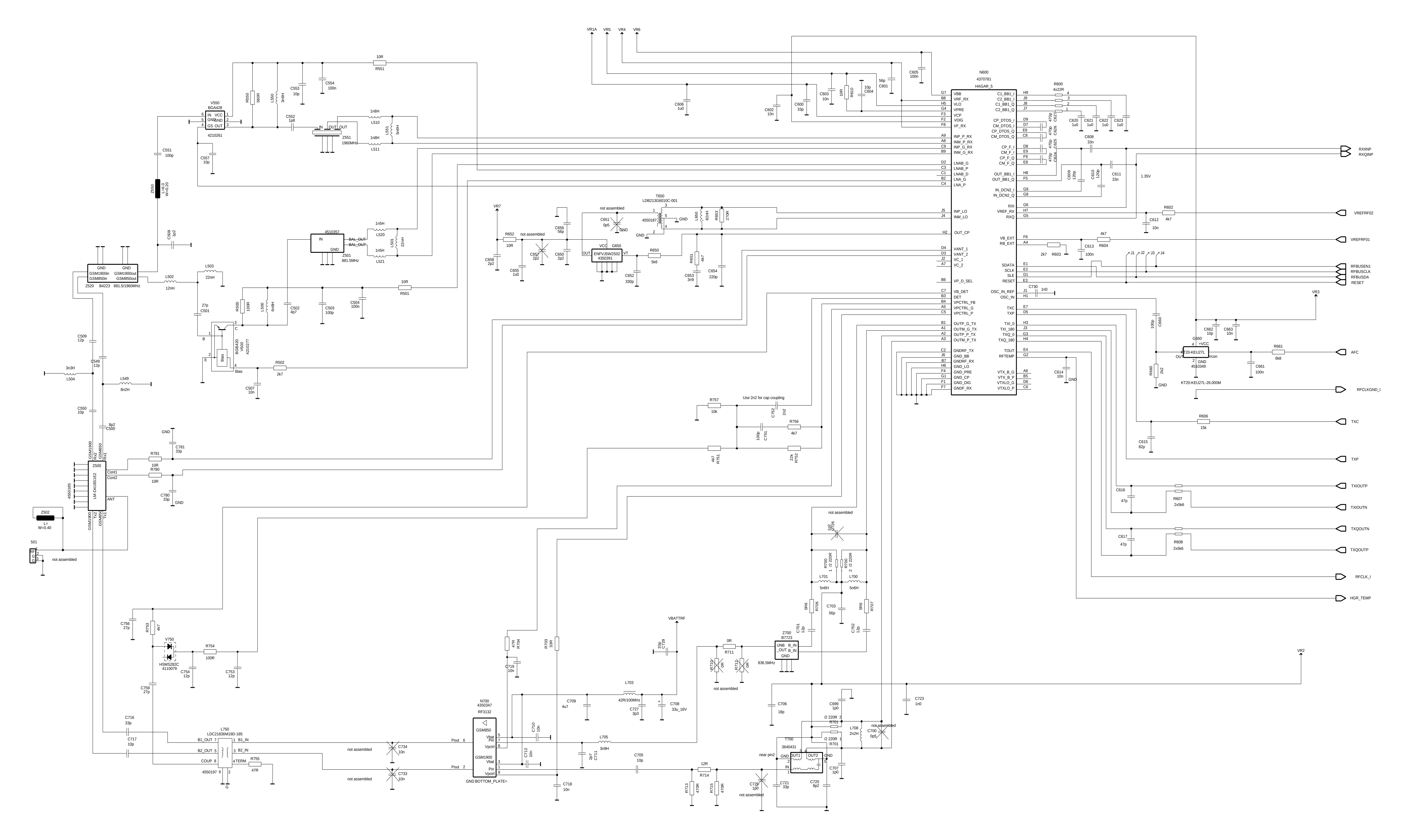
Used referenses

C	350 - 353
N	350
R	350

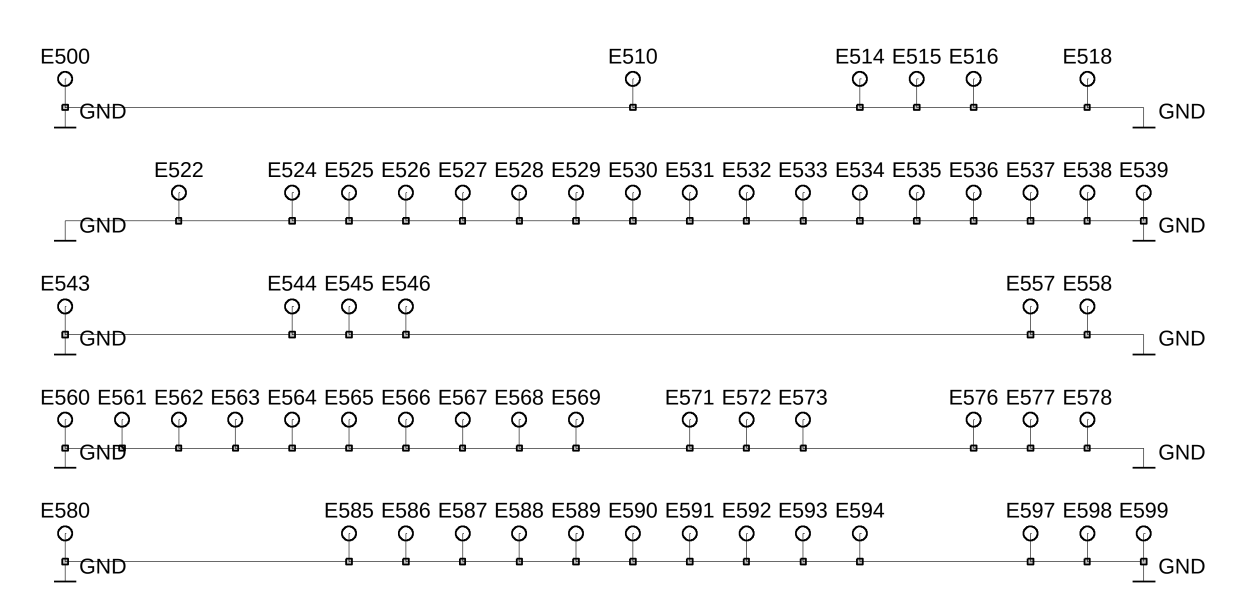
R350

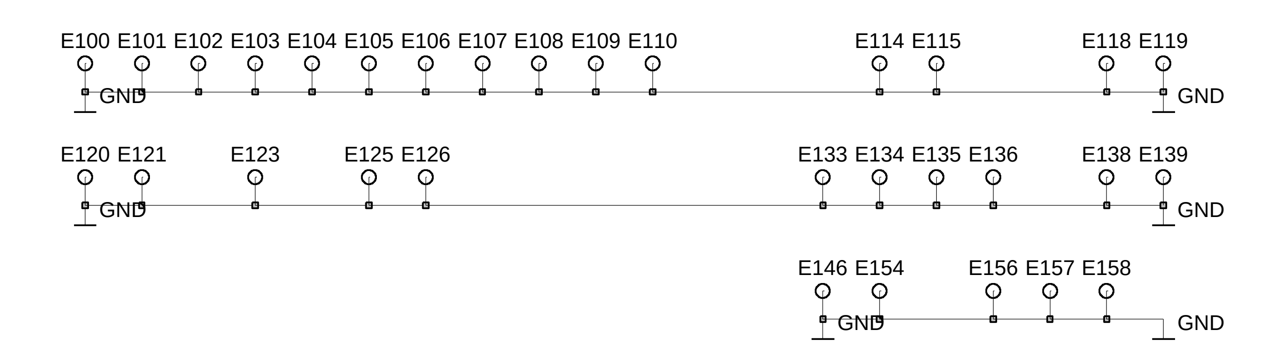

Will be changed to reference number in viewpoint
R350
RES_IN
RES_OUT
4R7

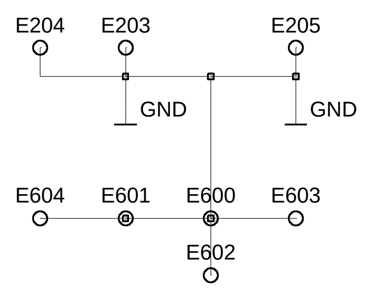
RF

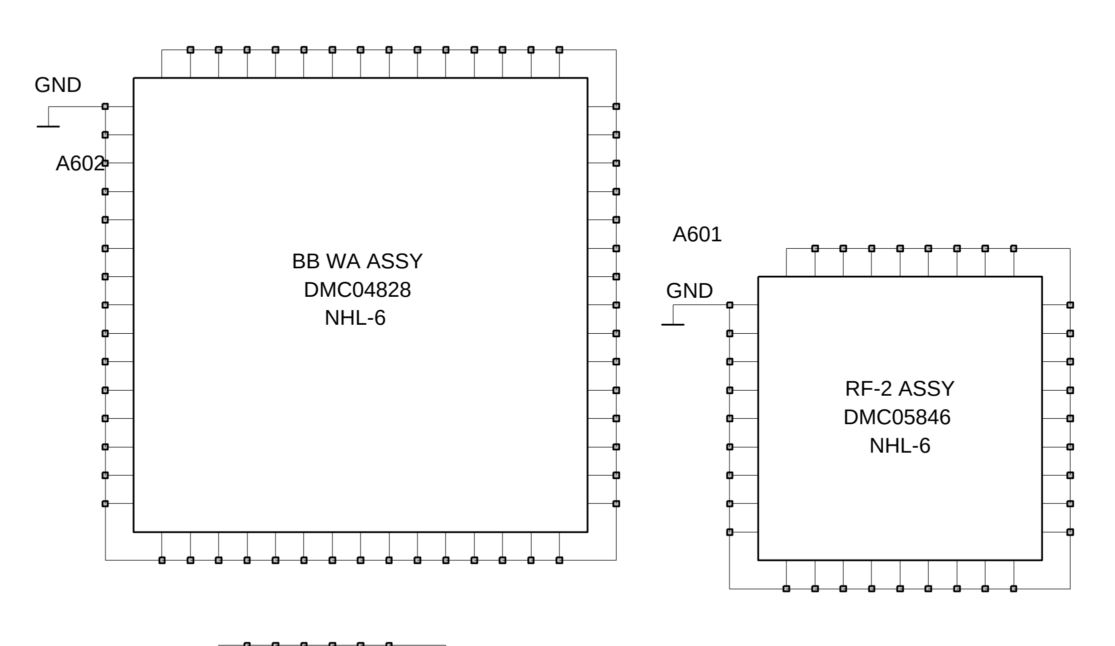


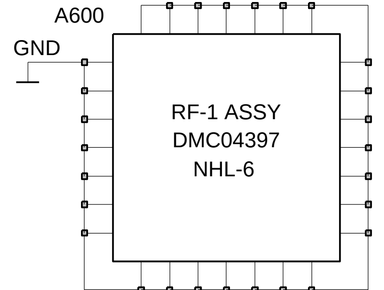
Shields


RF GLOBAL GND HOLES
E500 E510 E514 E515 E516 E518
GND GND
E522 E524 E525 E526 E527 E528 E529 E530 E531 E532 E533 E534 E535 E536 E537 E538 E539
GND GND
E543 E544 E545 E546 E557 E558
GND GND
E560 E561 E562 E563 E564 E565 E566 E567 E568 E569 E571 E572 E573 E576 E577 E578
GND GND
E580 E585 E586 E587 E588 E589 E590 E591 E592 E593 E594 E597 E598 E599
GND GND

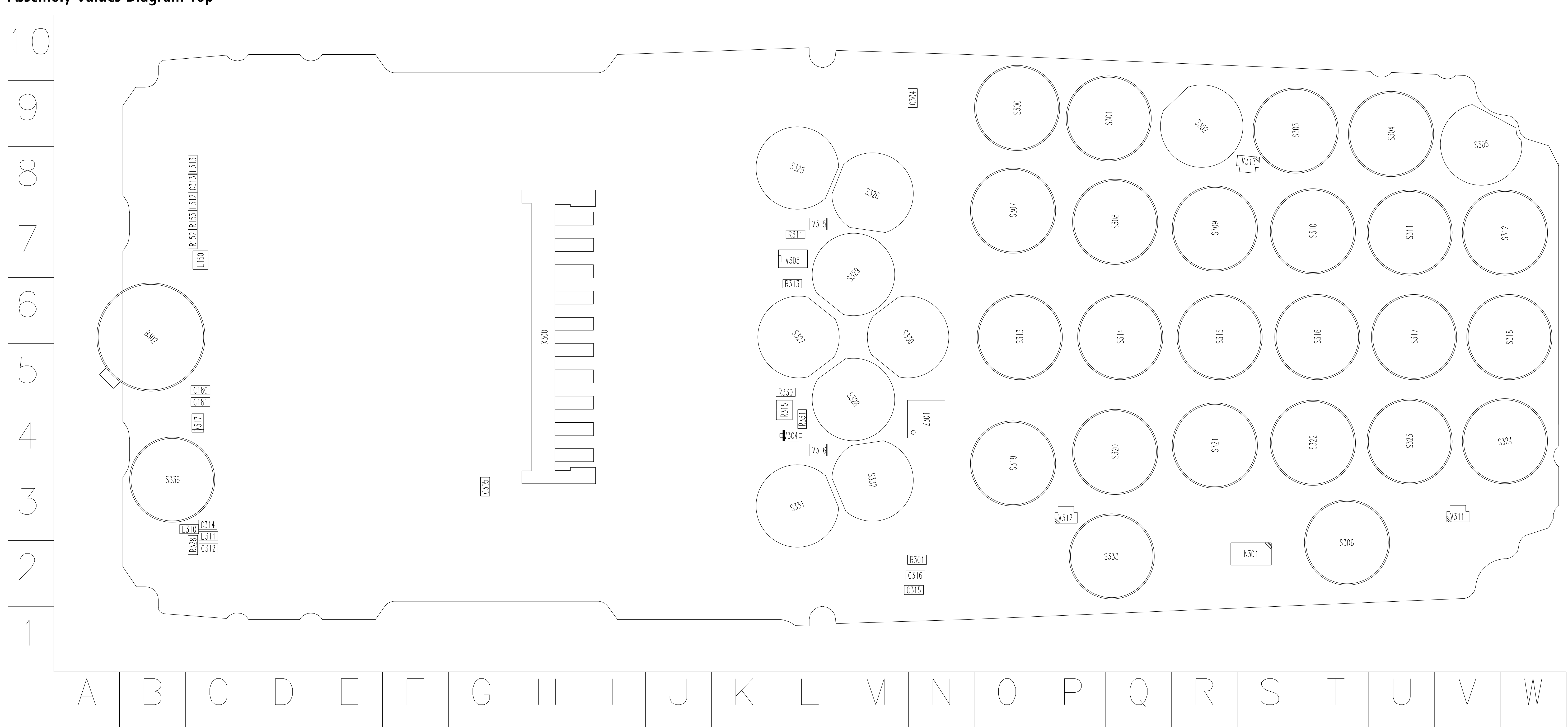

SYSTEM GLOBAL GND HOLES
E100 E101 E102 E103 E104 E105 E106 E107 E108 E109 E110 E114 E115 E118 E119
GND GND
E120 E121 E123 E125 E126 E133 E134 E135 E136 E138 E139
GND GND
E146 E154 E156 E157 E158
GND GND


E204 E203 E205
GND GND
E604 E601 E600 E603
E602


GND
A602
BB WA ASSY
DMC04828
NHL-6
A601
GND
RF-2 ASSY
DMC05846
NHL-6


A600
GND
RF-1 ASSY
DMC04397
NHL-6

Assembly Values Diagram Top



Assembly Values Diagram Bottom

